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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,780	09/17/2001	Geert Heijen	34648-00457USPT	7723

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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 03/05/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,780

Applicant(s)

HEIJENK ET AL.

Examiner

Melur Ramakrishnaiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-13, 15-19, 21-22, are rejected under 35 U.S.C 102(b) as being anticipated by Perreault et al. (US PATL 5,596,577, hereinafter Perreault).

Regarding claims 1, 8, 15, Perreault discloses a system for controlling access to a communication channel, comprising: a primary communication device (10, fig. 1), and a plurality of second communication devices (12, 14, 16, fig. 1), the primary communication device operable to: calculate an efficiency value (reads on polling priority) for each of the secondary communication devices, calculate fairness value (reads on amount of data allocated for the secondary stations for sending it to primary station) for each of the communication devices, and select a first communication device from the plurality of secondary communication devices to be provided access to the communication channel (20, fig. 1) based on a result of the calculated efficiency and the calculated fairness value (col. 3 line 24-col. 4 line 67).

Regarding claim 21, Perreault further discloses a master device for controlling at least one slave device in a communication system, the master device comprising: a slave selector in (40, fig. 1) for predicting a next slave device from a plurality of devices to be polled, the selector comprising: a fair share determiner in (40, fig. 1) for determining a fair share of bandwidth for at least one of the plurality of devices (col. 3

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lines 24-35), a decision maker in (30, fig. 1) for determining the next slave device to be polled out of the plurality of devices, and at least one status tracker in (30, fig. 1) for transmitting to the decision maker, a fraction of the fair share of bandwidth and probability of data being available to transmit for the at least one of the plurality slave devices (col. 4 lines 40-67, col. 5 lines 17-30).

Regarding claims 2-6, 9-13, 16-19, 22, Perreault further teaches the following: calculating and providing steps are performed by slave selector on a master communication device (10), and wherein the plurality of communication devices comprises a plurality of slave communication devices (12, 14, 16), the master communication device (10) polling each of the plurality of communication devices based on a result of calculating steps, the step of calculating efficiency value (reads on polling priority) for each of slave communication device comprises calculating efficiency value based, at least in part, on at least one of the presence of data to send from the master communication device to a slave communication device, and either a traffic demand message sent from a slave communication device to the master communication device or an estimate of the probability that a slave communication device has data to send the master communication device, calculating a fairness value for each of slave communication devices comprises calculating a fairness value (reads on amount of data allocated for the secondary stations for sending it to primary station) on a predetermined criteria, fairness value includes agreed quality of service requirements (this is implicit in as much as the secondary stations can transmit varied amount of data to the primary station depending on their data transmission requirements (col. 4 lines 38-51), a fair

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share determiner in (40, fig. 1) for determining a fair share of bandwidth for at least one of the plurality of slave communication devices (12, 14, 16, fig. 1), a decision maker in (30, fig. 1) for determining the next slave communication device to be polled out of the plurality of the slave communication devices, and at least one slave status tracker in (30, fig. 1) for transmitting, to the decision maker, a fraction of the fair share bandwidth and probability of data being available to transmit for the at least one of the plurality of slave communication devices, a fraction of share estimator in (40, fig. 1) for estimating the fraction of the fair share bandwidth, a data availability predictor in (30, fig. 1) for predicting the probability of data being available to transmit for at least one of the plurality of slave communication devices, and a traffic demand estimator in (40) for estimating a traffic demand (reads on congestion) for at least one of the at least one slave status tracker in (30, fig. 1, col. 4 lines 20-67, col. 5 lines 17-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 14, 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Perreault in view of Johansson et al. (US PAT: 6,480,505 B1, filed 12-6-1999, hereinafter Johansson).

Perreault differs from claims 7, 14, 20 in that he although he teaches radio transmission between the primary station (10, fig. 1) and secondary stations (12, 14, 16,

fig. 1, col. 3 lines 1-13), he does not teach the following: communication system comprises a Bluetooth communication system.

However, Johansson discloses batched fair exhaustive polling scheduler, which teaches the following: communication system comprises a Bluetooth communication system (col. 5 lines 31-35).


Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Perreault's system to provide for the following: communication system comprises a Bluetooth communication system as this arrangement would provide another alternative means for communications between master and slave units as taught by Johansson.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melur Ramakrishnaiah
Primary Examiner
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